

The year 2018 marked the 10th anniversary of the Global Financial Crisis (GFC). In the past decade, the global political and economic landscape has undergone profound changes. We have seen episodes that are beyond the imagination of the best screenwriters. I noted in last year's Annual Report that the financial markets had performed much better than expected in 2017, but cautioned about uncertainties and risks in the outlook. With the benefit of hindsight, it may be fair to describe 2018 as a year that started well but ended off-colour. Shortly after major stock indexes around the world spiked to their record highs in January, the bullish sentiment was dampened by the US-China trade tensions. Coupled with factors such as the Brexit impasse, a deteriorating geopolitical environment and four rate hikes by the US Federal Reserve, market optimism took a sharp turn and asset prices plunged. The MSCI World Index fell 20.3% from peak to trough and ended the year with a 10% drop, making 2018 the worst year since the outbreak of the GFC. The Hang Seng Index also recorded a peak-to-trough decline of 26.7%, and lost 13.6% for the whole year — the largest decline in seven years.

Robust LERS an anchor of confidence

Despite the volatile and unpredictable external environment last year, Hong Kong's financial system remained sound and the money market continued to operate smoothly. The Linked Exchange Rate System (LERS), which has been in place for 35 years, withstood the test of an outflow of funds from the Hong Kong dollar (HKD). Since the outbreak of the GFC, funds equivalent to some HK\$1 trillion have flowed into the HKD. Last year, the rising US interest rates resulted in a continued widening of interest rate spreads between the US dollar (USD) and the HKD. This attracted increased interest carry trade activities involving the selling of HKD in exchange for USD, weakening the HKD exchange rate against the greenback since early last year. The weak-side Convertibility Undertaking (CU), introduced in 2005, was first triggered in April, followed by another 26 triggers during the year. In accordance with the established mechanism, the HKMA bought HKD under the weak-side CU, totalling HK\$103.5 billion, from the market in an orderly and transparent manner. As a result of the outflow of funds, the

one-month Hong Kong Interbank Offered Rate recorded a cumulative increase of 105 basis points in 2018. Banks also raised their best lending rates following the US rate hike in September. To facilitate the public's understanding that the outflow of funds from the HKD is, by design, a necessary process for the normalisation of HKD interest rates under the LERS, the HKMA proactively communicated to the public the working of the mechanism through various channels. The International Monetary Fund reaffirmed its support for the LERS at the end of last year. The HKSAR Government also emphasised that the LERS is the cornerstone of Hong Kong's monetary stability. All these efforts helped anchor public confidence in the LERS

A sound banking system with stronger resilience

The 2008 GFC revealed the many shortcomings and vulnerabilities in the global financial system. In the past decade, thanks to the concerted efforts of the international community, a series of reforms were introduced to the financial markets and financial institutions. These included strengthening banking supervision to enhance corporate governance and risk management. The HKMA takes a two-pronged approach on banking supervision, namely prudential supervision (which focuses on the balance sheet risk of banks) and conduct supervision. As a member of the Basel Committee on Banking Supervision and the Financial Stability Board (FSB) under G20, the HKMA implements international regulatory standards to ensure that banks in Hong Kong conduct their business in a sound and prudent manner. As at end-2018, the capital adequacy ratio of local banks was 20.3%, well above the international minimum requirement of 8% and significantly higher than the level of 14.7% recorded during the GFC. The average liquidity

coverage ratio of large banks was also well above the minimum statutory requirement of 90%, reaching 167.6% in the fourth quarter of 2018. To avoid the recurrence of the situation during the 2008 GFC in which public money was used to bail out financial institutions that were "too big to fail", the FSB has developed a set of international standards that aim to resolve failing financial institutions in an orderly manner. Hong Kong is among the few jurisdictions in the region that have put in place a resolution regime that is fully compliant with these standards. The HKMA's Resolution Office is working on the operational details of the regime and is requiring banks to implement structural changes to enable effective implementation of their resolution plans when necessary. Following the promulgation of loss-absorbing capacity rules last year, the HKMA will continue to roll out rules relating to the regime in the future.

In view of rising property prices, the HKMA has taken preemptive actions and introduced eight rounds of countercyclical measures between 2009 and 2017 that aim to strengthen the resilience of Hong Kong's banking system to a possible downturn in the local property market. These measures have been effective. The average loan-to-value ratio of new residential mortgage loans fell to 46% at end-2018 from 64% in 2009. The average debt servicing ratio also decreased to 34% at end-2018 from 41% in 2010. Total bank loans recorded a moderate growth of 4.4% during the year and maintained good asset quality, with the classified loan ratio of retail banks declining further to 0.5% at end-2018, well below international and local historical average levels. The profitability of banks continued to grow in 2018, with overall return on equity rising for two consecutive years to 13%. The Hong Kong operation of many international banking groups performed well and was a major source of group earnings.

A good banking culture at all levels

On conduct supervision, the HKMA established the Banking Conduct Department in 2010 to promote fair treatment of bank customers and to strengthen consumer protection. To drive more fundamental changes, we complement our regulatory requirements on banks' conduct and business practices with bank culture reform. The culture reform encourages banks to foster a sound culture within their institutions through three pillars: governance, incentive systems, and assessment and feedback mechanisms. We expect banks to adopt a "tone from the top" approach in implementing the reform, which should help enhance customers' trust and respect. To facilitate the effective implementation of the three pillars by banks, the HKMA provided specific guidance to banks in 2017 and further introduced supervisory measures at end-2018, including requiring banks to conduct self-assessment on their implementation of culture enhancement measures.

Notwithstanding the global trend towards internet and mobile financial services, the HKMA continued to promote financial inclusion to meet the needs of those who may be unable to make use of the new technology. For example, the HKMA worked with the Hong Kong Association of Banks to introduce a scheme via Electronic Payment Services for the elderly to withdraw cash at convenience stores without the need to make purchases, and the number of convenience stores offering this service has expanded to more than 300. We also worked with the Hongkong Post to offer a cash withdrawal service for the elderly in seven post offices, mainly on outlying islands and in the New Territories. In response to the HKMA's recommendation, the banking industry has taken proactive steps in increasing barrier-free facilities to enhance the accessibility of banking services. For instance, the number of voice navigation ATMs increased by more than 10 times to over 700 during the year. With our encouragement, it is also expected that more physical and mobile bank branches will be launched in remote areas in the coming future to provide more convenience to the public.

Brand new experience in the era of Smart Banking

The HKMA worked closely with the banking and information technology industries to implement the initiatives announced in September 2017 under the banner of "New Era of Smart Banking". By promoting fintech development and innovation in Hong Kong, we hope to offer a brand new experience in payment and banking services to the public. Undoubtedly, the highlight of 2018 must be the launch of the Faster Payment System (FPS) in September. The FPS is a unique retail payment platform that allows full connectivity between the various e-wallets and bank accounts, providing an instant, round-the-clock fund transfer service in HKD and renminbi. To supplement the FPS, the HKMA also introduced the world's first common QR code standard for retail payments in Hong Kong as well as a related mobile application tool. The app facilitates merchants' use of a single QR code to accept payments from different payment schemes. The FPS has been very well-received by the public. In the short span of just six months since its launch, the FPS has recorded over 2.58 million registrations and processed a daily average of 60,000 transactions involving HK\$20,700 and RMB38,000 per transaction respectively.

In May 2018, the HKMA published a revised *Guideline on Authorization of Virtual Banks*, which soon attracted 33 applications for virtual bank licences. As of mid-April 2019, four licences had been granted, and it is expected that they will commence operation within this year. Virtual banks will not only help drive fintech and innovation, but also bring about brand new customer experiences for individuals and businesses, particularly small to medium-sized enterprises, which should help promote financial inclusion.

In July, the HKMA published an Open Application
Programming Interface (Open API) framework, setting the stage for banks to open up their products and services via Open API in four phases. This initiative helps create a more flexible and open fintech environment, and provides bank customers with greater convenience in integrating their accounts, obtaining information, and choosing services which best meet their needs. In 2018, a total of 42 pilot trials of new fintech products were conducted in our Fintech Supervisory Sandbox. Among these, 28 have been completed, with the relevant products and services already rolled out to the market.

With the HKMA's support, eTradeConnect — a distributed ledger technology (DLT)-based trade finance platform developed by a consortium of banks — was launched in October. This platform substantially enhances banks' efficiency in processing trade finance applications. We are also conducting a proof-of-concept on the connection of eTradeConnect with similar platforms in other jurisdictions to facilitate cross-border trade financing.

Fintech is widely applied in daily life. In recent years, its application has also extended to compliance and supervision. The HKMA encourages banks to adopt regulatory technology (Regtech) to assist in their daily operations, such as using surveillance technologies to detect suspicious transactions that may be linked to money laundering or the financing of terrorism. Meanwhile, we are also studying the potential of using supervisory technology (Suptech) to further enhance the efficiency and effectiveness of our supervisory work.

IFC from strength to strength

Increasingly, international financial centres are competing on soft power. To create new growth areas for Hong Kong's financial sector, we have to keep pace with economic, social and technological developments and seize new opportunities ahead of us. Green finance provides promising prospects for Hong Kong, particularly in the bond and project finance markets. The HKMA has been working with the Government in developing the green finance market in Hong Kong. Apart from preparing for the launch of the HK\$100 billion Government Green Bond Programme, the HKMA also held a number of major green finance events last year, including two large-scale international conferences. These efforts helped promote market awareness and understanding of, and participation in, green finance, while encouraging issuing institutions to take part in the Green Bond Grant Scheme and the Green Finance Certification Scheme introduced last year. Our efforts are bearing fruit. Green bond issuances in Hong Kong reached over US\$11 billion in 2018, more than triple that of 2017.

In recent years, investment in infrastructure projects has been gaining traction. Since its inception in 2016, the HKMA Infrastructure Financing Facilitation Office (IFFO) has more than doubled its number of partners to 95 today. IFFO has established itself as an important platform for infrastructure financing in the region. Last year, the HKMA co-hosted a high-level roundtable with the China State-owned Assets Supervision and Administration Commission to discuss Hong Kong's unique role in helping Central State-owned Enterprises (CSoEs) to go global. The roundtable paved the way for further co-operation between CSoEs and the financial and professional services sector in Hong Kong to capture emerging opportunities.

Hong Kong has maintained its role as the leading global offshore renminbi business hub. The average daily turnover of Hong Kong's renminbi Real-Time Gross Settlement system reached a record high of over RMB1,000 billion in 2018, compared with a mere RMB0.6 billion a decade ago. Such stellar growth reflects the steady development of offshore renminbi business in Hong Kong and the robustness of our financial infrastructure, which provides the requisite support for an increasingly sophisticated offshore market. During the year, new progress was made on the offshore renminbi bond business. The HKMA's Central Moneymarkets Unit assisted the People's Bank of China in the issuance of the latter's first offshore renminbi bills in Hong Kong, further extending the yield curve of renminbi bonds in Hong Kong. Enhancement measures were also introduced for the Bond Connect scheme, including the full implementation of real-time delivery-versus-payment settlement and tax exemption measures, further facilitating international investors' access to the Mainland bond market via Hong Kong.

The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), announced in February 2019, reaffirms and further supports Hong Kong's position as an international financial centre, a global offshore renminbi business hub, an international asset management centre and a risk management centre. The HKMA has been working closely with Mainland authorities to explore further financial facilitation measures for the GBA. These measures include simplifying onshore bank account opening procedures for Hong Kong residents, extending the usage of Hong Kong e-wallets to the Mainland, and granting mutual access of wealth management products. Through the facilitation of the HKMA and Mainland authorities, a number of Hong Kong

e-wallet and retail payment system operators have already introduced cross-border payment services which enable payment at Mainland retail outlets with Hong Kong e-wallets. Recently, a Hong Kong-based bank has also launched remote on-boarding service which enables Hong Kong residents to open Mainland bank accounts through its branches in Hong Kong. As for corporates, the HKMA will continue to work closely with Mainland authorities to expand the policy headroom, including increasing the two-way usage of renminbi liquidity pool, facilitating businesses' cross-border operations, and promoting cross-border investment and financing activities. The HKMA will fully support the policy objectives of the Outline Development Plan and contribute to the development of the GBA into a world-class city cluster.

Talent is crucial to the sustainable development of an international financial centre. Capacity building for Hong Kong's financial sector has been one of our work priorities in recent years. Preparatory work for the establishment of an Academy of Finance (AoF) is proceeding at full steam. Serving as a centre of excellence in promoting financial leadership development and enhancing applied research in the monetary and financial fields, the AoF will be formally established in mid-2019. Meanwhile, the HKMA keeps up its work in implementing the Enhanced Competency Framework (ECF) for Banking Practitioners. Since 2016, we have launched ECF modules covering anti-money laundering and counter-financing of terrorism, cybersecurity, treasury management, and retail wealth management. In consultation with the banking industry, we launched a new module on credit risk management in March 2019, and will soon be working on a new module on risk management and compliance.

Staying the course, investing for the future

Global financial markets experienced a turbulent year in 2018, with equities, bonds and non-US dollar assets all declining, and most investment funds suffering losses to varying degrees. Despite the difficult environment, the Exchange Fund managed to record an investment gain of HK\$10.9 billion last year, representing an overall rate of return of 0.3%. The HKMA has been striving to achieve a relatively stable income in the medium and long term through diversified investments of the Exchange Fund. A notable example is our diversification into alternative assets such as private equity and real estate through the Long-Term Growth Portfolio (LTGP) since 2009. Over the last decade, the LTGP has achieved an annualised internal rate of return of 12.9%, contributing steady and decent returns to the Exchange Fund. We will continue to adhere to the principle of ensuring "Capital Preservation First, Long-Term Growth Next" to safeguard and grow the wealth of Hong Kong people.

Financial stability and development are two sides of the same coin. Stability is the bedrock that supports sustained development. In the past decade, the HKMA has diligently pursued our mandates of maintaining stability and promoting development. Working together with the various stakeholders, we have achieved a great deal: the offshore renminbi business in Hong Kong has prospered; our position as an international banking hub has been further enhanced; asset management and wealth management businesses have grown substantially; connectivity between Hong Kong and the Mainland's financial markets has been further broadened and deepened; and fintech has got off to a speedy start. Hong Kong is now in a much stronger position as Asia's premier international financial centre, and the best is yet to come.

Don't let history repeat itself

As the saying goes, "water can float a boat and sink it as well". The GFC in 2008 exposed the vulnerabilities of the global financial system, low levels of risk awareness and unethical practices of some practitioners. The hardest lesson was the use of taxpayers' money to bail out failing financial institutions. Subsequent actions by major central banks, such as pursuing zero interest rates and introducing quantitative easing which aimed to prop up the market and invigorate the economy, resulted in excessive global liquidity, asset price distortions and a widening wealth gap. While Hong Kong's financial system has survived the GFC largely unscathed, the ensuing ripple effect does sound an alarm that we should stay vigilant to any emerging risks and get ourselves well prepared. History has told us that it is difficult to predict when a financial crisis will hit and how it will unfold. With this in mind, the HKMA has done a great deal of work over the past decade in enhancing the resilience of Hong Kong's financial sector, especially the banking sector, to help Hong Kong withstand any shocks that may come our way and recover quickly from such shocks.

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